

Atty. Dkt. No. 035451-0107

**REMARKS**

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

A detailed listing of all claims that are, or were, in the application, irrespective of whether the claims remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1-20 are now pending in this application.

**Claim Rejections – 35 U.S.C. § 102**

In Section 2 of the Office Action, the Examiner rejected Claims 1, 3, and 4 under 35 U.S.C. 102(b) as being anticipated by Cole et al. (U.S. Patent No. 5,890,115). The Examiner indicated that Cole et al. discloses an apparatus that includes “a program residing in memory and configured to be run on the processing device, the program configured to vary the output amplitude of the sound generator depending on the frequency output of the sound generator (Col 3, Lines 40-50).” Applicants respectfully submit that Cole et al. does not teach the claim limitation as recited above. The Examiner cites:

The wavetable memory includes a speech sample database and a speech reference database. The speech sample database supplies speech signals that are processed by the wavetable synthesizer according to information contained in the speech reference database. Reference information in the speech reference database includes various dictionaries, context lists, algorithms, and heuristic rules for guiding decisions relating to selection of primitive speech element, duration, volume and other parameters.

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The dictionaries store of sampled words and phonics and encoding designating the pronunciation of the words and phonics.

Cole et al., Col. 3, Lines 40-50.

Applicants respectfully submit that the teaching in Cole et al. is not a teaching of varying output amplitude depending on the frequency. As described at ¶ [0022] of Applicants' specification, because it is the nature of some sound generators that each tone in a sound generator has a different sound pressure level (or amplitude) with some widely varying, it is beneficial to adjust the amplitude automatically depending on the frequency. Accordingly, the use of the software pre-filter as disclosed provides such functionality. This functionality is not disclosed, taught, or suggested in Cole et al. Accordingly, Applicants respectfully submit that Claims 1, 3, and 4 and claims depending from independent Claim 1 are allowable.

**Claim Rejections – 35 U.S.C. § 103**

In Section 3 of the Office Action, the Examiner rejected Claims 15-20 under 35 U.S.C. § 103(a) as being unpatentable over Cole et al. in view of Yeap (U.S. Patent No. 4,118,601), further in view of Okada et al. (U.S. Patent No. 5,095,798).

The Examiner indicates that Cole et al. discloses a method of improving sound quality for a sound generator including "accessing a lookup [memory] table with or calculating volume adjustment information according to the sound frequency to be generated (Col 13, Line 20; Col 15, Line 48; Col 16, Line 20)." To this assertion, Applicants disagree. What is taught at Col. 13, Line 20, is that sounds can be provided with templates that provide special effects for the sounds. What is not taught by the citation in Cole et al. is that a lookup table with access according to the sound frequency is generated to obtain volume adjustment information. Further, what is taught in Col. 15, Line 48 of Cole et al., is the controlling of pitch, not the controlling of amplitude of the signal according to the sound frequency to be generated. Further, what is taught

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in Cole et al. at Col. 16, Line 20, is that the volume is controlled based on volume parameters not the frequency of sound to be generated. Further, none of Yeap or Okada et al. teaches the limitation of accessing a lookup table according to sound frequency to be generated to obtain volume adjustment information. Accordingly, the limitation is not taught by any combination of the references and therefore is not rendered obvious by the combination of Cole et al., Yeap, and Okada et al. Thus, independent Claims 15-20 are therefore allowable.

In Section 4 of the Office Action, the Examiner rejected Claims 2 and 7 under 35 U.S.C. § 103(a) as being unpatentable over Cole et al. in view of Klein (U.S. Patent No. 6,011,473). Applicants respectfully submit that with regard to Claims 2 and 7, which depend from independent Claim 1, the rejection has already been addressed in the anticipation rejection of independent Claim 1. Further, no combination of Cole et al. and Klein teaches the limitation from Claim 1 of "a program residing in memory and configured to be run on the processing device, the program configured to vary the output amplitude of the sound generator depending on the frequency output of the sound generator." Accordingly, Claims 2 and 7 are not rendered obvious over Cole et al. in view of Klein.

In Section 5 of the Office Action, the Examiner rejected Claim 5 under 35 U.S.C. § 103(a) as being unpatentable over Cole et al. in view of Campbell (U.S. Patent No. 6,532,005). Applicants respectfully submit that neither Cole et al. nor Campbell teaches, alone, or in any proper combination, the limitation found in independent Claim 1 of "the program configured to vary output amplitude of the sound generator depending on the frequency output of the sound generator." Accordingly, Applicants respectfully submit that Claim 5 is not rendered obvious over Cole et al. in view of Campbell.

In Section 6 of the Office Action, the Examiner rejected Claim 6 under 35 U.S.C. § 103(a) as being unpatentable over Cole et al. in view of Cohen (U.S. Patent No. 4,283,600). Applicants respectfully submit that neither Cole et al. nor Cohen alone, or in any proper combination, teaches, or suggests the limitations of a "program configured to vary the output amplitude of the sound generator depending on the output frequency of the sound generator."

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Accordingly, Applicants respectfully submit that Claim 6 is not rendered obvious over Cole et al. in view of Cohen.

In Section 7 of the Office Action, the Examiner rejected Claim 8 under 35 U.S.C. § 103(a) as being unpatentable over Cole et al. in view of Pfeiffer (U.S. Patent No. 4,618,985). Applicants respectfully submit that nothing in Cole et al. or Pfeiffer, alone or in any proper combination, discloses, teaches, or suggests the claim limitation of "the program configured to vary the output amplitude of the sound generator depending on the output frequency of the sound generator." Accordingly, Applicants respectfully submit that Claim 8 is not rendered obvious over Cole et al. in view of Pfeiffer.

In Section 8 of the Office Action, the Examiner rejected Claim 9 under 35 U.S.C. § 103(a) as being unpatentable over Cole et al. in view of Pfeiffer as applied to Claim 8 and further in view of Groff (U.S. Patent No. 4,446,334). Applicants respectfully submit that Cole et al., Pfeiffer, or Groff do not disclose, teach, or suggest, alone, or in any proper combination, "the program configured to vary the output amplitude of the sound generator depending on the output frequency of the sound generator." Accordingly, Claim 9 is not rendered obvious by any combination of Cole et al., Pfeiffer, and Groff.

In Section 9 of the Office Action, the Examiner rejected Claim 10 under 35 U.S.C. § 103(a) as being unpatentable over Cole et al. in view of Pfeiffer as applied to Claim 8 above and further in view of Campbell (U.S. Patent No. 6,532,005). Applicants respectfully submit that no combination of Cole et al., Pfeiffer, or Campbell, discloses, teaches, or suggests, alone or in any proper combination. The claim limitation of "the program configured to vary the output amplitude of the sound generator depending on the output frequency of the sound generator." Accordingly, Claim 10 is not rendered obvious by Cole et al. in view of Pfeiffer, and further in view of Campbell.

In Section 10 of the Office Action, the Examiner rejected Claim 11 under 35 U.S.C. § 103(a) as being unpatentable over Cole et al. in view of Pfeiffer as applied to Claim 8 above and

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further in view of Klein (U.S. Patent No. 6,011,473). Applicants respectfully submit that no combination of Cole et al., Pfeiffer, and Klein discloses, teaches, or suggests, alone, or in any proper combination "the program configured to vary the output amplitude of the second generator depending on the output frequency of the sound generator." Accordingly, Applicants respectfully submit that Claim 11 is not rendered obviousness under 35 U.S.C. § 103(a).

In Section 11 of the Office Action, the Examiner rejected Claims 12, 13, and 14 under 35 U.S.C. § 103(a) as being unpatentable over Cole et al. in view of Pfeiffer as applied to Claim 8 above and further in view of data attached to references which shows the widespread use of Bujeon and Citizen sound generator circuit within the industry over 20 years. Applicants respectfully submit that no combination of Cole et al., Pfeiffer, and the attached data discloses, teaches, or suggests the claim limitation of "the program configured to vary the output amplitude of the sound generator depending on the output frequency of the sound generator." Accordingly, Applicants respectfully submit that Claims 12, 13, and 14 are not rendered obvious by combination of Cole et al., Pfeiffer and the attached data.

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 06-1447. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 06-1447. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. § 1.136 and authorize payment of any such extensions fees to Deposit Account No. 06-1447.

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Respectfully submitted,

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